



Dr. Yoshiharu IWASAKI

Most recently acquired academic qualification:

Tokyo Institute of Technology, (M. Sc.)

Career:

1970 Tokyo Metropolitan Research Institute for Environmental Protection, Researcher

1986 Tokyo Metropolitan Research Institute for Environmental Protection, Chief Researcher

1995 Tokyo Metropolitan Research Institute for Environmental Protection, Director

2002 Tokyo Metropolitan Research Institute for Environmental Protection, Chief Director

Major Committee Memberships:

Japan Society for Atmospheric Environment, Standing Director

Tokyo Metropolitan Institute of Technology, Guest Professor

Tokyo University of Science, Part time Lecturer

Other Distinctions (Awards, etc.):

Winner of the Tokyo Metropolitan Governor Prize (1984,1997)

Winner of the Japan Society for Atmospheric Environment Prize(1985)



Prof. Sung-Bong YANG

Most recently acquired academic qualification:

1989 Ph. D Chemistry, KAIST, Korea

Career:

- 1989-2000 Kyoto University, Faculty of Engineering, Japan(Visiting Scholar)
- 1981-present University of Ulsan, School of Chemistry and Biochemical Sciences
(Full-time Assistant, Assistant Professor, Associate Professor, Professor)
- 2003-present Laboratory of Air Quality and Health, Queensland University of
Technology, Australia(Visiting Professor)

Major Committee Memberships, etc.:

- 1997-1999 Chairman : Research Facilities Center in University of Ulsan
- 2001-present Vice-President, Korean Society of Odor Research & Engineering
- 2003-present Member : Committee for Measures of Hazardous Compounds
in Korean Ministry of Environment

Major Publications:

Recent Projects : Reports(2001~2003)

- A study on the trend of research for cluster ions in ambient air : LG Home Appliances(2003)
- Consulting for development of air cleaner using oxygen ion cluster : Sudo Engineering(2003)
- A study for assessment of deodorizing system using nano carbon ball : LG (2003)
- Consulting for applications of deodorizing agent : Sudo Engineering(2002)
- A study for applications of activated white clay : KyongWon Chemicals(2002)
- Analysis of odorants in air from vacuum cleaners : LG Home Appliances(2002)
- A study for establishment of guideline of permitting concentrations of VOCs in paints and ink : Korean Ministry of Environment(2002)
- Investigation of emission sources and the study for reduction of odour in Siwha and Banwol area : National Institute of Environmental Research, Korea(2002)

- Development of gas-leak indicator reactive to odorant and study for its application : Korea Gas Corporation (2001)
- Assessment of efficiencies of abatements facilities of VOCs in Korea Paints Co. : DongYang Magic Ltd.(2001)
- Analytical study for air in clean, polluted, residential area and indoor air of apartments : Samsung Electronics(2001)
- Research for the installation of electric nose in Ulsan : Ulsan Regional Environmental Research Center(2001)
- Analysis of fatty acids in air around Siwha and Banwol area : National Institute of Environmental Research, Korea(2001)

Meeting and conference (2002~2004)

- S. Yang, M.S. Yu, S.H.Lee, "Estimation on Odor Concentration and Odorants in the Refrigerators of Koreans" Annual Meeting of Odour Research and Engineering Association, may. 2004, Tokyo, Japan
- S. Yang, M.S. Yu, "Trend of odour research and regulation in Korea", Annual Meeting of Odour Research Group, Daido Institute of Technology, Jan. 2004, Nagoya, Japan
- S. Yang, M.S. Yu, and S.I. Hwang, "Expectation of total odour emission rates according to a category of business in Siwha and Banwol area", Annual Meeting of Odour Research and Engineering Association, Jul. 2003, Tokyo, Japan
- M.S. Yu, S. Yang, "Comparative study for odour from Korean orange and pine leaf by sensory assessment and GC/MS analysis", Annual Meeting of Odour Research and Engineering Association, Jul. 2003, Tokyo, Japan
- S. Yang, "Methodology of expectation of odour strength and major attributes to the odour in ambient environment", Symposium at Meeting of 91th Korean Chemical Society, Apr. 2003, Seoul, Korea
- S. Yang, "Measurement and regulation of odour", Symposium for Environmental Technologies, Korean Association of Industrial Chemistry, Nov. 2002, Ansan, Korea
- S. Yang and M.S. Yu, "Odour regulation in Korea", Annual Meeting of Odour Research and Engineering Association, Jul. 2002, Tokyo, Japan
- J.S. Han, S. Yang, G.S. Huh, M.G. Kim, D.S. Lee and S.T. Kim, "Detailed investigation of effective odourants in the ambient odours", Meeting of Korean Society of Odour Research and Engineering, May 2002, Ulsan, Korea
- S. Yang, M. S. Yu, H.C. Hwang, "Analysis of sulfuric compounds in the ambient air with low temperature concentration/ GC/ FPD", Meeting of Korean Society of Odour

Research and Engineering, May 2002, Ulsan, Korea

- B.Y. Byun, J.G. Kim, S. Yang, "A study for Japanese regulation on the odour emitted from point sources", Meeting of Korean Society of Odour Research and Engineering, May 2002, Ulsan, Korea
- O.G. Lee, T.W. Kim, S. Yang, "A study for relationship between odour concentrations and their attributes from point sources in a chemical plant", Meeting of Korean Society of Odour Research and Engineering, May 2002, Ulsan, Korea
- H.S. Kim, M.S. Yu, S. Yang, "Analysis of odorants in plastics with adsorption/thermal desorption /GC/ MSD", Meeting of Korean Society of Odour Research and Engineering, May 2002, Ulsan, Korea
- E.H. Seo, S. Yang, M. S. Yu, "Analysis of VOC's generated from needle and broad leaves", Meeting of Korean Society of Odour Research and Engineering, May 2002, Ulsan, Korea

Books(2001~2004)

- S. Yang, and M.S. Yu, "Basic principle of air cleaning", in Korean, Sudo Premium, 2003, Seoul
- M.S. Yu, J.S. Ahn and S. Yang, "The olfactory sense and odorants – Text book for a selection examination of olfactory assessors in Japan", interpretation of Japanese book in Korean, Sudo Premium, 2004, Seoul, in press
- S. Yang, M.S. Yu, C. Ahn, "Indoor air pollution and its measurement – K. Ikeda(author)", interpretation of Japanese book(Asahikougyou-sha) in Korean, Sudo Premium, 2004, Seoul

Papers(2002~2003)

- O.G. Lee, S. Yang, M.S. Yu, "A case study on simple estimation of odour dispersion by odour emission rates of a chemical plant", Journal of Korean Environmental Science(Korean), 283~389(11), 2002
- M. S. Yu, S. Yang, "Analysis of sulfuric compounds in ambient air", Journal of Analytical Science(Korean), 82~90(6), 2003
- S. Yang, "Korean odour regulation", Journal of Korean Society of Odour Research and Engineering, 6~15(1), 2002
- S. Yang, M.S. Yu, H.C. Hwang, "Analysis of fatty acids in ambient air", Journal of Korean Society of Odour Research and Engineering, 6~15(1), 2002



Mr. Toshiro SEGAWA

Most recently acquired academic qualification:

1986 Bachelor, Faculty of Literature, Tohoku University

Career:

1986 Entered to the Environment Agency, Government of Japan

1993 Seconded to the Agency of Natural Resources and Energy, MITI

1997 Seconded to Kitakyushu-City

2002 Appointed to the Secretary to the Ministry of the Environment

Present Appointed to the Chief of Noise and Odor Division



Prof. Lei SHI

Most recently acquired academic qualification:

1967 Graduated from He Bei University

Career:

2002-present Director of State Key Laboratory of Odor Pollution Control

1977-2001 Senior engineer in Tian Jin Academy of Environment Science

1967-1977 Technician of Cheng De Pottery in He Bei Province

Major Committee Memberships:

Tian Jin Analysis and Measurement Committee

Other Distinctions (Awards, etc.):

2000 Third degree award of science advancement in Tian Jin by the research on Standard Olfactory liquid.

1999 Third degree award of Science advancement in National EPB by research on emission standard of odor pollutants.

Major Publications:

Odor Pollution Measurement and Control Technology; Published by China Chemistry Publication on May, 2004

Air Environment Standard Manual Published by National EPB on July, 1996

Emission standard of Odor Pollutants (GB14554-93) Published by Standard Publication in 1993



Dr. Takaya HIGUCHI

Most recently acquired academic qualification:

1996 Dr. Eng. in Global Environment Engineering, Kyoto University

Career:

1999-present Research Associate

Department of Civil and Environmental Engineering, Yamaguchi University

1997-1999 Research Associate

Department of Construction Systems Engineering, Anan College of Technology

Other Distinctions (Awards, etc.):

2003 Academic Award, Japan Association on Odor Environment

Major Publications:

- T. Higuchi & J. Masuda: Interlaboratory comparison of olfactometry in Japan, *Water Science & Technology*, Vol. 50, No. 4, pp. 147-152, 2004.
- Takaya Higuchi, Ryuji Otomaru, Masahiro Ohsako & Masao Ukita: Laboratory studies on volatilization and diffusion characteristics of odorous compounds for estimating odor emission from wastewater, *Proceedings of 1st IWA International Conference on Odour and VOCs: Measurement, Regulation and Control Techniques*, pp. 339-346, 2001.
- Takaya Higuchi & Konosuke Nishida: Analysis of data measured by the triangular odor bag method, in McGinley, C. M. & Swanson, J. R. (eds.), *ODORS: Indoor and Environmental Air*, Air & Waste Management Association, Pittsburgh, pp. 181-192, 1995.
- Takaya Higuchi, Konosuke Nishida, Takashi Higuchi, Nobumasa Takeuchi & Ryujiro Tsuchihashi, A study on the temporal attribute in sense of smell for estimating offensive odor, *Journal of Japan Society of Air Pollution*, Vol. 29, No. 6, pp. 313-322, 1994. (in Japanese with English abstract)



Prof. Sang Jin PARK

Most recently acquired academic qualification:

Dr. of Engineering

Career:

Former President, Korean Society of Odor Research & Engineering
Chairman, Korea Odor & VOCs Research Group
Professor of Civil & Environmental Eng'g Department, Dean of Student Affairs, Woosong University
Research Fellow, Korea Institute of Construction Technology under the Ministry of Construction

Major Committee Memberships:

Korean Society of Odor Research & Engineering
Korean Society of Water and Waste Water
Korean Society of Environmental Engineering
Korean Society of Atmospheric Environment
Japan Association on Odor Environment
IWA / AWMA

Major Publications:

"Odor and VOCs Measurement of Ambient Air of Daejeon 1-2 Industrial Complex in Korea", Better Air Quality 2004 Workshop, Agra, India (Abstract Submitted)
"Control of Odor and VOCs Emissions Using Biofiltration: A Case Study of Styrene", Proceeding of 3rd IWA International Conference on Odour and VOCs (2003)
"Removal of Odor Emitted from Composting Facilities Using Ceramic Biofilter", Jour, of Water Science and Technology, Vol.44, No.9 pp.301-308 (2001)
"Evaluation of Porous Ceramic as Microbial Carrier of Biofilter to Remove Toluene Vapor", Jour. of Environmental Technology Vol.22, pp.47-56 (2001)



Dr. Joji FUKUYAMA

Most recently acquired academic qualification:

1972 Graduate School, Gifu Pharmaceutical University

Career:

1972-1988 Researcher, Osaka City Institute of Public Health and Environmental Sciences

1988-2001 Senior Researcher, Osaka City Institute of Public Health and Environmental Sciences

2001- Manager, Osaka City Institute of Public Health and Environmental Sciences

Major Committee Memberships:

Guest Professor of Osaka City University

Chairman of committee of air pollution measuring methods in the Pharmaceutical Society of Japan

Member of Central Council for Control of Environmental Pollution on Ministry of Environment

Other Distinctions (Awards, etc.):

1987 Award for Encouragement from Urban Living and Health Association

1996 Scientific Award from Japan Association on Odor Environment

Major Publications:

- Theory and Application of Biological Deodorization (revised edition) (1994)
- Studies on Deodorization by Activated Sludge(1) Removal of Malodorous Sulfur-containing Gases, Journal of Japan Society for Atmospheric Environment, 14(10), 422 - 428 (1979)
- Development of Odorous Gas Sampler and Investigation of its practicalities, Toxicological and Environmental Chemistry, 11, 319-333 (1986)
- Malodor Emission Characteristics in Rendering Plants, Toxicological and Environmental Chemistry, 11, 335-350 (1986)



Prof. Xiang zhong LI

Most recently acquired academic qualification:

Ph. D from The University of New South Wales, Australia in 1992

Career:

1993- Present Lecturer, Assistant Professor, Associate Professor and Professor in The Hong Kong Polytechnic University

1991-1993 Postdoctoral Research Fellow in The University of New South Wales, Australia

Major Committee Memberships, etc.:

Member of Journal Editorial Board for China Water and Wastewater

Member of Journal Editorial Board for Urban Environment & Urban Ecology

Member of International Water Association (IWA)

Member of Australian Water Association (AWA)

Major Publications:

- Li, X.Z., Wu J.S. and Sun, D.L. (1998) H₂S and VFA removal from foul air in a fibrous bed bioreactor system for odour control, **Water Sci. Technol.**, 38(3), 323-330
- Chua H., Li X.Z., Yu P.H.F., Tam C.Y., Huang Y.L. and Yang S.T. (1999): Performance of fibrous bed bioreactor for treating odorous gas, **Appl. Biochem. Biotechnol.**, 77-79, 561-569
- Chua H., Li X.Z., Yu P.H.F., Tam C.Y., Huang Y.L. and Yang S.T. (2000) Design and performance of a fibrous bed bioreactor for odor treatment, **Appl. Biochem. Biotechnol.**, 84-86, 469-478.
- Chua H., Li X.Z., Tam C.Y., Huang Y.L. and Yang S.T., (2000) Deodorization of contaminated air by immobilized microbes, **Toxicol. Environ. Chem.**, 72, 171-181
- Li F.B., Li X.Z. and M.F. Hou (2004) The photocatalytic degradation of 2-Mercaptobenzothiazole in Aqueous La³⁺-TiO₂ Suspension for Odour Control, **Appl. Catal. B.** 48(3), 185-194



Dr. Takashi HIGUCHI

Most recently acquired academic qualification:

1995 Doctor of Engineering, Kyoto University

Career:

1995 Post-doctoral fellow, Lake Biwa Research Institute

1996 Assistant Professor, Dept. Civil Engineering, Ritsumeikan University

1999 Associate Professor, Dept. Civil Engineering, Ritsumeikan University

2004 Associate Professor, Dept. Environmental Systems Engineering,
Ritsumeikan University

Major Committee Memberships:

An editorial committee member of the “ *Journal of Japan Association on Odor Environment* ”

A specialist's committee member of environmental assessment, Otsu City, Shiga, Japan

Major Publications:

- (Paper) HIGUCHI, T., et al. ; An Experimental Study on The Calibration of Odor Index Using Sequential Acuity Measurement of Olfactory Panels , Journal of Japan Society for Atmospheric Environment, 38(1) 35- 46 2003
- (Presentation) HIGUCHI, T., et al.; A New Design for Biological Treatment of Gaseous Pollutants : Biofiltration of Hydrogen Sulfide Using Parallel- Moving Biosheet, Proc. of 94th Annual Meeting of Air & Waste Management Association, A E-2a #217, 2001



Dr. Lawrence C KOE

Most recently acquired academic qualification:

1983- Ph D, University of Queensland, Australia

Career:

2002- Associate Professor at the Nanyang Technological University, Singapore
Director, Environmental Engineering Research Center, NTU
Director and Chairman of the Board of Directors, Aromatrix Pte Ltd

Major Committee Memberships:

Council Member, Institute of Engineers, Singapore
Chairman, Air & Water Management Association, Singapore Chapter
Chairman, SAC – Singlas Committee on Environmental Engineering

Other Distinctions (Awards, etc.):

Recipient of the Michael Flynn Award for presenting the best paper at the 1983 Australian Water and Wastewater Association's Biennial Convention in Sydney
Innovation Award 2001 by Singapore's Enterprise Challenge Unit for the trial application of bioscrubber technology to remove sewage odour at Kranji Sewage Treatment Works.

Enterprise Challenge and Achievement Awards 2002 and 2003

Major Publications:

- Koe.L C C. and Y. Wu Removal of Toluene in waste gases by a biotrickling filter. Journal of Institution of Engineers, 41,3(2001):30-35(Singapore)
- Koe.L C C. A Arellano and J Mc Gregor, Investigating the haze transport from 1997 biomass burning in Southeast Asia: Its impact upon Singapore. Atmospheric Environment, 35, no.15 (2001): 2723-2734(United States).
- Koe.L C C. and F Yang, Evaluation of a pilot-scale bioscrubber for the removal of hydrogen sulphide. Water and Environment Management, 14,6 (Dec 2000):432-435.(United Kingdom).

- Koe.L C C. J McGregor and A Arellano, Southeast Asia Regional Haze Modelling. Journal of Institution of Engineers, 40.5 (2000):50-57 (Singapore).
- Koe.L C C. and F Yang, A bioscrubber for Hydrogen Sulphide removal. Water Science and Technology, 41.6(2000): 141-145. (United Kingdom).
- Koe.L C C. Witherspoon, J, Tan, N C. Regan, Vi. Daigger, G and T Card, Buried treasure. Water Environment and Technology, July (2000):30-35 (USA)